

PROCEEDINGS OF THE
ENTOMOLOGICAL SOCIETY OF WASHINGTON

Vol. 70

JUNE 1968

No. 2

STUDIES ON IDIOCERINAE LEAFHOPPERS: IV. A NEW SPECIES OF
BALOCHA AND ONE OF PEDIOSCOPUS, MIMICS

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A new species of *Balocha* Baker and one of *Pedioscopus* Kirkaldy are herein described. The generic position of the latter is somewhat tentative; male specimens are needed for a definite decision. Both species were collected by C. F. Baker in Borneo. Unfortunately there is no date or other information on the labels, except Sandakan, that would indicate that they were collected at the same time and place. The coloration of both species is quite similar to that of those species of *Balocha* that are striped with orange and yellow. This meager information suggests that the new species of *Pedioscopus* is a mimic of the new species of *Balocha*.

The types are deposited in the United States National Museum and paratypes in my collection. In the measurements that follow, 10 micrometer units are equivalent to 0.05 mm.

***Pedioscopus balochoides*, n. sp.**

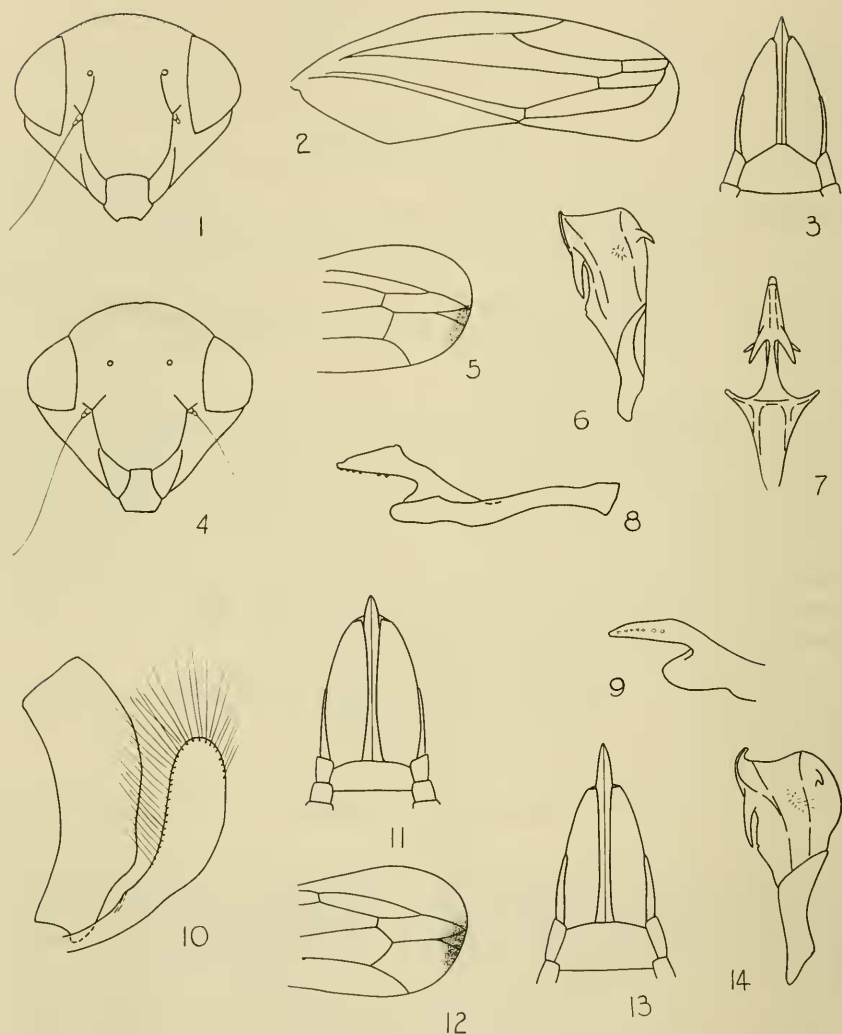
(Figs. 1-3)

Female—general coloration orange and yellow. Head yellowish with an orange transverse band on disk of vertex. Pronotum on anterior half yellowish, posterior half orange. Scutellum bright yellow. Thorax ventrally and laterally, legs, abdomen, and genital sclerites, except for brown tip of ovipositor, yellowish. Clavus orange on inner half, yellowish on outer half. Corium with a pale orange tinge, changing into brownish on apical cells; costal margin pale orange; veins on corium concolorous, barely visible, slightly brownish and better defined near apex of wing. Ocelli black.

Vertex parallel-sided, shagreen, less than $\frac{1}{3}$ as long as pronotum (4:10); pronotum about $\frac{1}{3}$ as long as wide (10:28). Scutellum wider than long (21:15). Face as in fig. 1. Forewing as in fig. 2. Length 4.1 mm.

Female genitalia—hind margin of last abdominal sternum angularly produced caudad and with truncate apex (fig. 3). Ovipositor slightly surpassing pygofer, without spines; pygofer smooth.

Holotype, female, USNM 69531; paratypes, one female each in the USNM and in my collection; all from Sandakan, Borneo, C. F. Baker collector.



Figs. 1-3, *Pedioscopus balochoides*, n. sp.: 1, head, frontal view; 2, forewing; 3, last abdominal segments, ♀. Figs. 4-11, *Balocha bicolor*, n. sp.: 4, head, frontal view; 5, apex of forewing; 6, aedeagus, lateral view; 7, aedeagus, caudal view; 8, style, lateral view; 9, apex of style, dorsal view; 10, pygofer and valve, lateral view; 11, last abdominal segments, ♀. Figs. 12-14, *B. bicolor uniformis*, n. ssp.: 12, apex of forewing; 13, last abdominal segments, ♀; 14, aedeagus, lateral view.

The venation of the forewing and the characters of the face indicate that this species is a *Pedioscopus*. It is the only known species of this genus that is banded with orange and yellow. Most of the species in this genus are conspicuously banded or spotted with black.

Others not so marked, like *P. modestus* Baker and *P. maquilingensis* Baker from the Philippine Islands, are ochraceous and definitely not banded with orange.

***Balocha bicolor*, n. sp.**

(Figs. 4-11)

Male—overall color orange and yellow. Vertex yellowish, the band on face barely visible from above; face pale orange, with an orange band from eye to eye above ocelli. Pronotum under margin of head yellow, anterior half orange, posterior half yellowish-orange or yellowish. Clavus with inner longitudinal half orange, outer half whitish-yellow. Corium contiguous to clavus orange, remainder translucent and more or less tinged with pale orange and turning into brownish on apical cells; costal margin narrowly pale orange; veins somewhat conspicuous, slightly deeper orange. Thorax ventrally and laterally, abdomen, legs, and genital capsule pale orange or slightly yellowish. Brown spot on forked cell extending to contiguous outer apical cell.

Vertex very finely striate, about $\frac{1}{3}$ as long as pronotum (3.2 : 10); pronotum $\frac{2}{5}$ as long as wide (10 : 25), posterior margin very slightly concave above scutellum. Scutellum wider than long (17 : 12). Face (fig. 4) slightly wider across eyes than long (27 : 25); lateral margin of frons (or postclypeus) roundly angled, lateral frontal suture not reaching ocellus, pointed well above ocellus of other side; clypeus (or anteclypeus) expanded apically, bell-shaped, as long as wide apically (5 : 5). Forked cell with peduncle shorter than cell (4 : 7) or slightly longer (7 : 6), as in fig. 5. Length 4.1 mm.

Genitalia typical of the genus, as in fig. 6-10.

Female—coloration and shape much as in male; forked cell of forewing with peduncle slightly shorter (5 : 6) or longer (6 : 5) than cell; blackish spot as in male. Genitalia: last abdominal sternum rectangular, hind margin slightly convex, as in fig. 11.

Holotype, male, USNM 69532; allotype female, in the USNM; six paratypes in the USNM, two in my collection; all from Sandakan, Borneo, C. F. Baker collector.

This species is quite close to *Balocha lucida* Maldonado described from Sarawak. They can be separated, besides the characters in the short key below, by many small details of the aedeagi, different apex of the styles, not so bright orange in *bicolor*, etc. In my key to the studied species of the genus (1961), *B. bicolor* runs to the second part of couplet 3 and can be separated from *B. lucida* as follows:

Peduncle three times as long as pedunculate cell; apical half of aedeagus thicker, with posterior spines arising from apex; ovipositor shiny brown

..... **B. lucida**

Peduncle shorter, about as long as pedunculate cell; apical half of aedeagus thinner, with posterior spines arising below apex; ovipositor dull yellow

..... **B. bicolor**

Balocha bicolor uniformis, n. ssp.

(Figs. 12-14)

Six specimens, from the same locality and perhaps collected at the same time, show slight differences in coloration of the pronotum, shape of the pedunculate cell, and genitalic characters. Although these characters seem to be constant there is intergrading between the extremes of this form and some specimens of the typical form, so I am calling these a separate subspecies. Field or laboratory observations would clarify the real rank of this group.

General shape and coloration much as in the typical form; with the following differences: pronotum uniformly (hence the name) orange, instead of banded; pedicel of pedunculate cell equal in length to cell in most cases, slightly shorter or longer in some (fig. 12), spot of brown near apex of wing extending slightly both sides of pedunculate cell in most specimens. Female genitalia slightly different, as in fig. 13, last sternum rectangular, posterior margin slightly convex. Aedeagus of male more enlarged on apical half (fig. 14).

Holotype, male, 69533. Allotype, female, in the USNM; three paratypes in the USNM, two in my collection. All from Sandakan, Borneo, C. F. Baker collector.

The two forms of *Balocha bicolor* can be separated as follows:

Pronotum with anterior half orange, posterior yellowish **B. bicolor bicolor**
 Pronotum uniformly orange **B. bicolor uniformis**

So far I have included seven species in *Balocha*, namely, *B. astuta* (Melichar), *B. bicolor* n. sp., *B. lucida* Maldonado, *B. melichari* (Baker), *B. nacreatus* (Baker), *B. pallida* Maldonado, and *B. tricolor* Distant. *Idiocerinus baker* Merino is either a *Balocha* or a *Pedioscopus* as Merino (1936, p. 326, 327) writes about "the reduction in size of the second apical cell" and "second outer reduced" in this species. The coloration would be unusual for a *Balocha*, and it agrees more with the coloration of other species of *Pedioscopus*. Dr. T. Ishihara, from Ehime University, Matsuyama, Japan, has kindly pointed out to me that "*Balocha flavocapitata* Kato is not an *Idiocerinus* but a species closely related to *Oncopsis mali* (Matsumura)." The generic position of *Idiocerinus stali* Fieber and *Balocha angulifera* Walker remain to be established.

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